CC domain (VH) of the SL15 antibody and JT182 antibody. These antibodies
CC have strong neutralising activity for TGF beta 1 and are used for the
CC treatment of a human or an animal suffering from a condition associated
CC with TGF-beta 1 expression and extracellular matrix deposition such as
CC glomerulonephritis, keloid and hypertrophic scarring, proliferative
CC vitreoretinopathy, glaucoma drainage surgery, corneal injury and
CC cataracts. They are used to treat asthma, fibrosis, rheumatoid arthritis
CC and tumours associated with angiogenesis and/or metastasis such as
CC breast, prostate, ovarian, stomach, colorectal, skin, lung, cervical
CC and/or bladder tumours, leukaemia and/or sarcomas. They are also used to
CC modulate the immune system and inflammatory responses and improve the
CC immune response to infections such as hepatitis B, hepatitis C and AIDS.
CC The present sequence is a heavy chain variable region (VH) of human JT182
CC antibody which is capable of binding to transforming growth factor -beta
CC 1 (TGF-beta 1)
XX
SQ Sequence 123 AA;

Query Match 100.0%; Score 649; DB 3; Length 123;
Best Local Similarity 100.0%; Pred. No. 7.6e-50;
Matches 123; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKELEWVAVISYDGSIKYY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKELEWVAVISYDGSIKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARTGEYSGYDTPASPDWGQGTTVT 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARTGEYSGYDTPASPDWGQGTTVT 120

Qy        121 VSS 123
              |||
Db        121 VSS 123
```

RESULT 2
AAY71935
ID AAY71935 standard; protein; 123 AA.
XX
AC AAY71935;
XX
DT 26-MAR-2001 (first entry)
XX
DE Heavy chain variable region (VH) of human SL15 antibody.
XX
KW Human; heavy chain variable region; VH; SL15 antibody; cytostatic;
KW ophthalmological; immunomodulatory; antiinflammatory; antileukaemic;
KW antiasthmatic; transforming growth factor-beta 1; TGF-beta 1; CDR;
KW complementarity determining region; treatment; glomerulonephritis;
KW hypertrophic scarring; proliferative vitreoretinopathy; cataract; keloid;
KW glaucoma drainage surgery; corneal injury; immune system; asthma; tumour;
KW inflammatory response; angiogenesis; metastasis; leukaemia; sarcoma;
KW fibrosis; rheumatoid arthritis; hepatitis B; hepatitis C; AIDS;
KW Acquired immune deficiency syndrome; extracellular matrix deposition.
XX
OS Homo sapiens.
XX
PN WO200066631-A1.
XX
PD 09-NOV-2000.
XX
PF 02-MAY-2000; 2000WO-GB001679.
XX
PR 30-APR-1999; 99US-0131983P.
XX
PA (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI Thompson JE, Lennard SN, Wilton AJ, Braddock PSH, Du Fou SL;
PI Mccafferty JG, Conroy LA, Tempest PR;
XX
DR WPI; 2000-687531/67.
DR N-PSDB; AAD02041.
XX

PT Antibodies that specifically bind to transforming growth factor-beta1,
PT useful for treating e.g. cancers and ophthalmological disorder such as
PT cataracts and proliferative vitreoretinopathy.
XX
PS Claim 5; Page 77; 84pp; English.
XX
CC The present invention relates to specific binding members which are
CC capable of binding to transforming growth factor-beta 1 (TGF-beta 1). The
CC invention relates specifically to the antibodies which include the
CC complementarity determining region 3 (CDR3) of the heavy chain variable
CC domain (VH) of the SL15 antibody and JT182 antibody. These antibodies
CC have strong neutralising activity for TGF beta 1 and are used for the
CC treatment of a human or an animal suffering from a condition associated
CC with TGF-beta 1 expression and extracellular matrix deposition such as
CC glomerulonephritis, keloid and hypertrophic scarring, proliferative
CC vitreoretinopathy, glaucoma drainage surgery, corneal injury and
CC cataracts. They are used to treat asthma, fibrosis, rheumatoid arthritis
CC and tumours associated with angiogenesis and/or metastasis such as
CC breast, prostate, ovarian, stomach, colorectal, skin, lung, cervical
CC and/or bladder tumours, leukaemia and/or sarcomas. They are also used to
CC modulate the immune system and inflammatory responses and improve the
CC immune response to infections such as hepatitis B, hepatitis C and AIDS.
CC The present sequence is a heavy chain variable region (VH) of human SL15
CC antibody. SL15 antibody was formerly known as Kylie. It is capable of
CC binding to transforming growth factor-beta 1 (TGF-beta 1)
XX
SQ Sequence 123 AA;

Query Match 94.5%; Score 613; DB 3; Length 123;
Best Local Similarity 95.1%; Pred. No. 1.2e-46;
Matches 117; Conservative 1; Mismatches 5; Indels 0; Gaps 0;

```
Qy          1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKELEWVAVISYDGSIKYY 60
              :|||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 EVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKELEWVAVISYDGSIKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARTGEYSGYDTPASPDWGQGTTVT 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||     ||||||||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARTGEYSGYDTDPQYSWGQGTTVT 120

Qy        121 VSS 123
              |||
Db        121 VSS 123
```

RESULT 3
AAW15535
ID AAW15535 standard; protein; 123 AA.
XX
AC AAW15535;
XX
DT 27-NOV-1997 (first entry)
XX
DE Anti-TGF beta-1 scFv antibody 31G9 VH domain.
XX
KW Transforming growth factor beta-1; TGF-beta-1; human;
KW antibody engineering; scFv; phage display; lung fibrosis;
KW arterial injury; proliferative retinopathy; retinal detachment;
KW adult respiratory distress syndrome; liver cirrhosis;
KW post myocardial infarction; post-angioplasty restenosis; scleroderma;
KW vascular didease; cataract; glaucoma; scarring; glomerulonephritis;
KW osteoporosis; immune disease; inflammation; rheumatoid arthritis;
KW macrophage deficiency disease; macrophage pathogen infection; therapy.
XX
OS Homo sapiens.
XX
PN GB2305921-A.
XX
PD 23-APR-1997.
XX
PF 07-OCT-1996; 96GB-00020920.
XX
PR 06-OCT-1995; 95GB-00020486.

PR 19-JAN-1996; 96GB-00001081.
XX
PA (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI Thompson JE, Vaughan TJ, Williams AJ, Green JA, Jackson RH;
PI Bacon L, Johnson KS, Wilton AJ, Tempest PR, Pope AR;
XX
DR WPI; 1997-215360/20.
DR N-PSDB; AAT60381.
XX
PT Agent contg. antigen-binding domain of human antibody to transforming
PT growth factor beta 1 or 2 - and nucleic acid encoding it, used to
PT neutralise effects of TGF, e.g. for control of fibrosis, immune and
PT inflammatory disease.
XX
PS Claim 16; Fig 1a(ii); 184pp; English.
XX
CC This polypeptide comprises the VH domain of human scFv antibody 31G9,
CC which is specific for transforming growth factor (TGF) beta-1. It is
CC encoded by a gene (AAT60381) isolated from a large single chain Fv
CC library. The antigen-binding domains of human antibodies (see AAW15522-
CC 40) to TGF beta-1 and/or beta-2 can be used to counter the adverse
CC effects of TGF beta, such as (i) promotion of fibrosis (in dermal, ocular
CC or keloid scarring, lung fibrosis, arterial injury, proliferative
CC retinopathy, retinal detachment, adult respiratory distress syndrome,
CC liver cirrhosis, post myocardial infarction, post-angioplasty restenosis,
CC scleroderma, vascular disorders, cataract, glaucoma, or esp. neural
CC scarring and glomerulonephritis, also (not claimed) osteoporosis), or
CC (ii) immune and inflammatory diseases (e.g. rheumatoid arthritis,
CC macrophage deficiency diseases or macrophage pathogen infection). Nucleic
CC acids encoding human antibody VH and VL can be used for prodn. of
CC recombinant antigen-binding domains. These are highly specific, have low
CC dissociation constants (pref. less than 5 nM) and low IC50s for
CC neutralisation
XX
SQ Sequence 123 AA;

Query Match 92.9%; Score 603; DB 2; Length 123;
Best Local Similarity 94.3%; Pred. No. 9.1e-46;
Matches 116; Conservative 1; Mismatches 6; Indels 0; Gaps 0;

```
Qy          1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKELEWVAVISYDGSIKYY 60
              |||||:||||||||||||||||||||||||||||||||| ||||||||||||||||
Db          1 QVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSIKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARTGEYSGYDTPASPDWGQGTTVT 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||     ||||||||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARTGEYSGYDTSGVELWGQGTTVT 120

Qy        121 VSS 123
              |||
Db        121 VSS 123
```

RESULT 4
AAY71934
ID AAY71934 standard; protein; 123 AA.
XX
AC AAY71934;
XX
DT 26-MAR-2001 (first entry)
XX
DE Heavy chain variable region (VH) of human CS37 antibody.
XX
KW Human; heavy chain variable region; VH; CS37 antibody; cytostatic;
KW ophthalmological; immunomodulatory; antiinflammatory; antileukaemic;
KW antiasthmatic; transforming growth factor-beta 1; TGF-beta 1; CDR;
KW complementarity determining region; treatment; glomerulonephritis;
KW hypertrophic scarring; proliferative vitreoretinopathy; cataract; keloid;
KW glaucoma drainage surgery; corneal injury; immune system; asthma; tumour;
KW inflammatory response; angiogenesis; metastasis; leukaemia; sarcoma;
KW fibrosis; rheumatoid arthritis; hepatitis B; hepatitis C; AIDS;
KW Acquired immune deficiency syndrome; extracellular matrix deposition.
XX
OS Homo sapiens.
XX
PN WO200066631-A1.
XX
PD 09-NOV-2000.
XX
PF 02-MAY-2000; 2000WO-GB001679.
XX
PR 30-APR-1999; 99US-0131983P.
XX
PA (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI Thompson JE, Lenhard SN, Wilton AJ, Braddock PSH, Du Fou SL;
PI Mccafferty JG, Conroy LA, Tempest PR;
XX
DR WPI; 2000-687531/67.
DR N-PSDB; AAD02040.
XX
PT Antibodies that specifically bind to transforming growth factor-beta1,
PT useful for treating e.g. cancers and ophthalmological disorder such as
PT cataracts and proliferative vitreoretinopathy.
XX
PS Example 1; Page 76; 84pp; English.
XX
CC The present invention relates to specific binding members which are
CC capable of binding to transforming growth factor-beta 1 (TGF-beta 1). The
CC invention relates specifically to the antibodies which include the
CC complementarity determining region 3 (CDR3) of the heavy chain variable
CC domain (VH) of the SL15 antibody and JT182 antibody. These antibodies
CC have strong neutralising activity for TGF beta 1 and are used for the
CC treatment of a human or an animal suffering from a condition associated
CC with TGF-beta 1 expression and extracellular matrix deposition such as
CC glomerulonephritis, keloid and hypertrophic scarring, proliferative
CC vitreoretinopathy, glaucoma drainage surgery, corneal injury and
CC cataracts. They are used to treat asthma, fibrosis, rheumatoid arthritis
CC and tumours associated with angiogenesis and/or metastasis such as
CC breast, prostate, ovarian, stomach, colorectal, skin, lung, cervical
CC and/or bladder tumours, leukaemia and/or sarcomas. They are also used to
CC modulate the immune system and inflammatory responses and improve the
CC immune response to infections such as hepatitis B, hepatitis C and AIDS.
CC The present sequence is a heavy chain variable region (VH) of human CS37
CC antibody which is capable of binding to the transforming growth factor-
CC beta 1 (TGF-beta 1)
XX
SQ Sequence 123 AA;

Query Match 92.9%; Score 603; DB 3; Length 123;
Best Local Similarity 94.3%; Pred. No. 9.1e-46;
Matches 116; Conservative 1; Mismatches 6; Indels 0; Gaps 0;

```
Qy          1 QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKELEWVAVISYDGSIKYY 60
              |||||:||||||||||||||||||||||||||||||||| ||||||||||||||||
Db          1 QVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYDGSIKYY 60

Qy         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARTGEYSGYDTPASPDWGQGTTVT 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||     ||||||||
Db         61 ADSVKGRFTISRDNSKNTLYLQMNSLRAEDTAVYYCARTGEYSGYDTSGVELWGQGTTVT 120

Qy        121 VSS 123
              |||
Db        121 VSS 123
```

RESULT 5
AAW15534
ID AAW15534 standard; protein; 123 AA.
XX
AC AAW15534;
XX
DT 27-NOV-1997 (first entry)
XX
DE Anti-TGF beta-1 scFv antibody 1-B2 VH domain.